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NASA Procedural Requirements

COMPLIANCE IS MANDATORY**NPR 8705.5A**Effective Date: June
07, 2010Expiration Date: June
07, 2015[Printable Format \(PDF\)](#)

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(NASA Only)

Subject: Technical Probabilistic Risk Assessment (PRA) Procedures for Safety and Mission Success for NASA Programs and Projects

Responsible Office: Office of Safety and Mission Assurance[| TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [Chapter4](#) | [Chapter5](#) |
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Preface

P.1 Purpose

This NASA Procedural Requirements (NPR) provides basic requirements for performing a probabilistic risk assessment (PRA) for NASA programs and projects. It addresses technical, mission success, safety, and health risk. It does not address programmatic risk involving consideration of cost and schedule.

P.2 Applicability

- a. This NPR is applicable to NASA Headquarters and NASA Centers, including Component Facilities and Technical and Service Support Centers. This language applies to the Jet Propulsion Laboratory, other contractors, grant recipients, or parties to agreements to the extent specified or referenced in the appropriate contracts, grants, or agreements.
- b. This NPR applies specifically to programs and projects that provide aerospace products or capabilities; i.e., space and aeronautics systems and launch, flight, and control systems that support the mission. The importance and scope (potential effects on public and worker health and safety, strategic significance, and cost) of the project/program being assessed is used to identify the extent of the PRA application.
- c. This NPR does not apply to other types of programs and projects such as research and technology development and related test facilities, ground test infrastructure,

training, or education; however, the PRA concepts and practices described within this document can be beneficial to other projects.

d. The applicability of this NPR to programs/projects already in progress depends on its criticality and life-cycle phase. Decisions concerning applicability to programs/projects in progress will be made on a case-by-case basis involving program/project manager recommendations to the governing program management council (PMC).

P.3 Authority

- a. NPD 1000.5, Policy for NASA Acquisition.
- b. NPD 7120.4, Program/Project Management.
- c. NPD 8700.1, NASA Policy for Safety and Mission Success.
- d. NPR 7120.5, NASA Space Flight Program and Project Management Requirements.
- e. NPR 8000.4, Agency Risk Management Procedural Requirements.
- f. NPR 8715.3, NASA General Safety Program Requirements.

P.4 Applicable Documents

- a. Code of Federal Regulations, Title 22 Foreign Relations, Part 120-124 International Traffic In Arms Regulations.
- b. NPD 1440.6, NASA Records Management.
- c. NPD 8720.1, NASA Reliability and Maintainability (R&M) Program Policy.
- d. NPR 1441.1, NASA Records Retention Schedules.
- e. NPR 8705.6, Safety and Mission Assurance Audits, Reviews, and Assessments.

P.5 Measurement/Verification

The Office of Safety and Mission Assurance (OSMA) verifies program/project compliance with the requirements in the NPR through audits performed in accordance with NPR 8705.6, Safety and Mission Assurance Audits, Reviews, and Assessments, and through peer review. The program/project documents compliance with the requirements in this NPR in their program/project planning documentation and their PRA report.

P.6 Cancellation

NPR 8705.5 dated July 12, 2004.

/S/

Bryan O'Connor

Chief, Safety and Mission Assurance

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